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ABSTRACT

Over the past 10 years an effort has been directed toward developing a new conceptual formulation related to the professional development of and functions performed by the adult/extension educator-practitioner. The purpose for such a new formulation is one of providing a more adequate conceptual basis for: (1) designing professional development programs, and (2) viewing the role of practitioner. A greater proportion of scholarly resources in the field of adult education should be deliberately directed toward further development and refinement of existing conceptualizations and the creation and testing of new ones. Such scholarly efforts must be viewed as developmental, employing a different orientation to inquiry than much of what is typically undertaken. There are inherent difficulties in testing new conceptual formulations. The conceptual formulation explored in this paper to illustrate the above points has been demonstrated in practice to have potential utility to the profession--both as a basis for designing curricula and in conceiving the functioning of the practitioner-professional more adequately. It has not been possible, however, to test this conceptual formulation rigorously against other possibilities. (Author/AJ)

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DEVELOPING AND TESTING A NEW CONCEPTUAL FORMULATION FOR DETERMINING CURRICULA FOR THE PRACTITIONER: A CASE

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Ability to comprehend a phenomenon is limited by our "ways of thinking about" that phenomenon. That is especially true when the phenomenon is relatively complex (requiring highly abstract conceptualizations). Many of the conceptualizations with which we attempt to comprehend the various dimensions of our profession are ambiguous; they lack the preciseness that makes it possible for us to think as systematically and analytically as might be useful.

That is to say, many of the conceptualizations with which we "think" in our area of study are fuzzy. Take our notion of participation as an example. All we need do to see a convincing demonstration of this problem is to examine the paper of some graduate student who has attempted to develop an understanding of participation from existing literature.

Our problem is further confounded. Many of the ideas we utilize are borrowed from other areas of study or disciplines (e.g. sociology, anthropology, educational psychology). These ideas were not developed specific to our purposes.

There are at least three approaches that can be used to add refinement to the conceptual and procedural tools we employ:

1. We can undertake scholarly efforts aimed at "creating" new conceptualizations and/or procedural tools. A case in point would be Houle's developing a way of thinking about the adults' orientation to learning.[1]

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2. We can examine and refine existing conceptualizations--for example, Sheffield's[2] and Burgess'[3] efforts to add refinement to Houle's conceptualization of the adult's orientation to learning.
3. We can attempt to reconceptualize phenomena--to create different ways of conceiving; to attempt to look (perceive) a phenomenon or set of phenomena through new (different) lenses (lenses that do not already exist in our set of mental tools). This in effect is creating.

Pursuing the third approach poses especially difficult problems: (1) we are virtually imprisioned by existing conceptualizations; (2) in order to undertake reconceptualizations we must be engaged in what de Bono calls lateral thinking (trying to "see" from a new perspective);[4] (3) in trying to use a reconceptualization of a phenomenon we must not only "learn" the new, we must "unlearn" (to set aside) the existing conceptualization; (4) "testing" the reconceptualization (the new) becomes difficult because of limitations that exist for rigorously comparing the new with the old. This paper is especially concerned with attempts to reconceptualize a phenomenon and the testing of that reconceptualization.

The Situation

I am grapling with the above general problem in relation to the following situation. During my early studies in the field of adult education I became troubled with the detectable bases being used for developing inservice training programs for extension workers. In time, my concern extended to the entire scope of programming for the professional development of adult/extension education practitioners. I am now convinced that the same concern is equally appropriate to those preparing to be adult/extension education scholars (professors, teachers, researchers).

In my early studies (as a graduate student) I tried to work with the various existing lists of functions and training needs for the extension worker. Typically, the lists were long--the shortest containing eleven items.[5] Later I became further troubled with the emphasis being placed on the so-called knowledge explosion. Because of the knowledge explosion it was concluded that constant training was called for in order to "keep up-to-date." I began to wonder if it was realistically possible for practitioners to spend the amount of time in training that appeared might be necessary. There was another factor: Society was becoming increasingly complex and diverse. Various work situations (both physical location and job assignment) were sufficiently different that the need for retraining was being considered necessary for most changes in job assignments (for example, moving from one geographic location to another; changing the nature of responsibility from say being an "operative" to assuming some supervisory responsibilities).

Agonizing over such matters lead me to wondering if we should not concern ourselves with trying to insure that most, if not all, efforts at professional development should contribute (and be seen by the participant to contribute) to the long-range requirements, as well as the more immediate. Is that possible? My conclusion was that it has to be possible or we are on a treadmill.

What I have engaged in can perhaps be characterized by what Schwab[6] calls fluid (long-range) inquiry. He calls the other kind of inquiry stable or short-range. Pursuing stable (short-range) inquiry, the scholar bases his work on existing conceptions. He follows the scientific method.[7] Burgess' work previously referred to would probably fall in the category of stable (short-range) inquiry.

Fluid or long-term inquiry, according to Schwab, arises when what the stable (short-term) inquirer takes for granted is treated as a problem. He says that one of the three aims of fluid inquiry[8] is this: To devise a modification of existing structure, or a new structure to replace it, that

will embrace more of the richness of the subject matter and take account of weaknesses discovered in the older principles.

Schwab says it is virtually impossible to provide step-by-step descriptions of method of fluid inquiry. Such descriptions may not be possible in advance (in designing the inquiry). It becomes a developmental effort. Consequently, the structure I am using for reporting efforts undertaken to date has been imposed in retrospect. It was not a carefully preconceived design.

Lazarsfeld's[9] formulation of the flow from concepts to empirical indices has been used in imposing that structure. Lazarsfeld says the process by which concepts are translated into empirical indices has four steps:

1. An imagery of the concept--the creation of a rather vague image or construct.
2. Concept specification--dividing the imagery into components (aspects, dimensions, or similar specifications); this reveals that the concept consists of a complex combination of phenomena.
3. Selecting indicators, each of which does not have an absolute but probability relationship to the underlying concept.
4. Forming indices--putting the indicators and dimensions (components) back together again.

Stages in the Evolution of the Conceptualization

I'll characterize the fluid inquiry process followed to date in four stages: (1) development, (2) elaboration, (3) refinement, (4) testing. The structure being imposed is represented in Figure 1. You will note that Lazarsfeld's four steps have not been completed. As a matter of fact it will be revealed that the testing (stage 4) that has been undertaken to date is exploratory and unrefined.

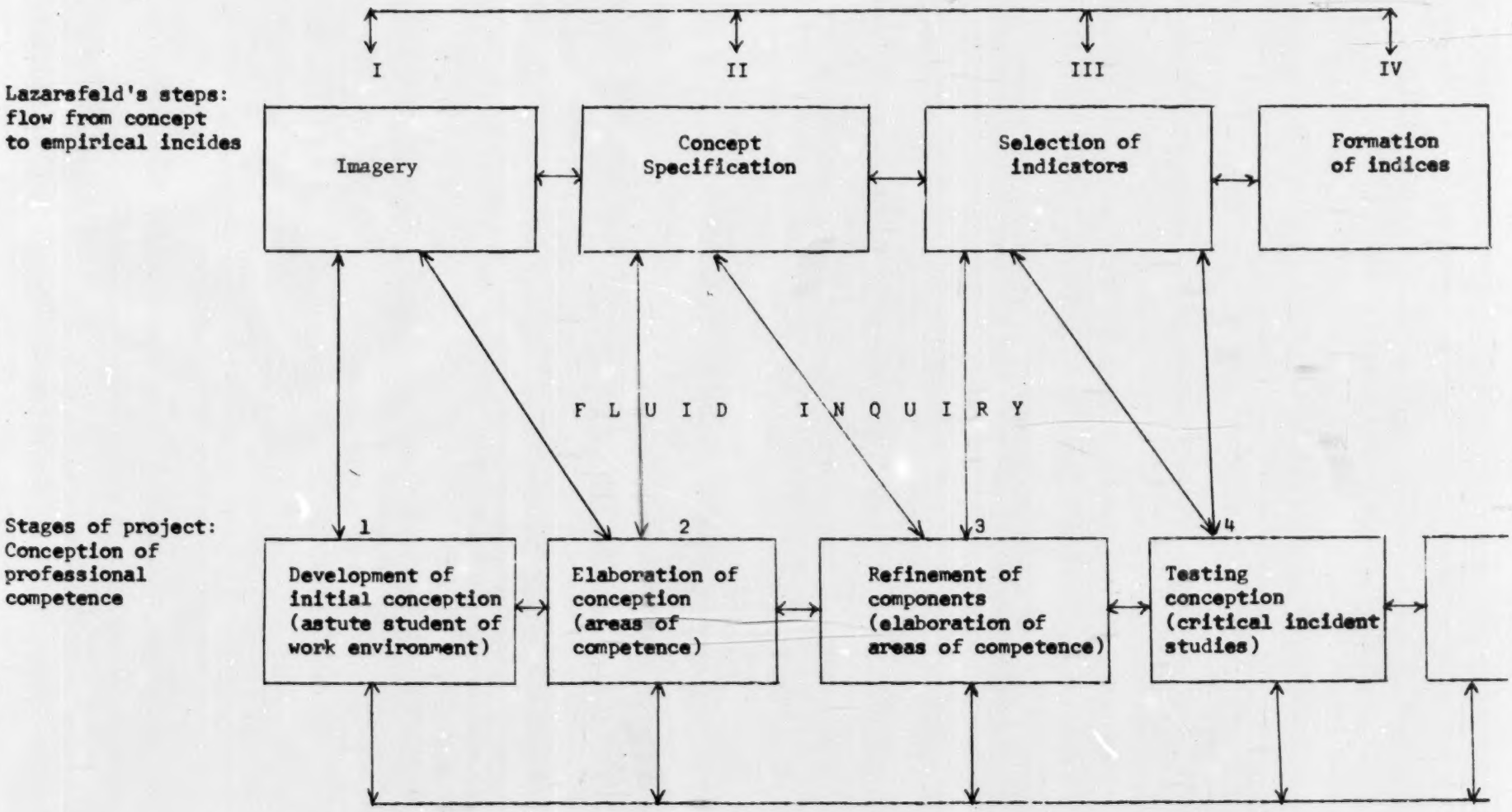

Figure 1. Systems representation of Schwab's fluid inquiry applied to Lazarsfeld's flow from concept to empirical indices.

First Stage: Development

The development of the conception began in 1964 in a seminar with four Ph.D. students in the National Agricultural Extension Center for Advanced Study. Over the period of a year we attempted to get some grasp of an initial imagery (Lazarsfeld's first step). We were saying that the practitioner-professional must so prepare himself and function that he becomes increasingly an astute student of his work environment.[10] At the end of that year the four graduate students were at the point in their program of needing to proceed with their thesis research. They were designing studies with the intention of attempting to further develop the imagery. Two were undertaking critical incident studies of practitioners in the Extension Service;[11] one was undertaking a study of training needs of Americans working overseas;[12] the fourth was examining the orientation of extension practitioners to Rokeach's dogmatism scale.[13]

As it turned out, the two students pursuing critical incident studies inductively developed categories of behavior from their incidents which were heavily influenced by previous conceptions of the operational role of the extension agent. We discovered they could look at their data only through eyes "preconditioned" by previous exposure to ideas about the job and functions of their study populations. Consequently, the job responsibility categories they developed were not greatly different from other descriptions to which they had been exposed in their experience and study.

The training categories for the study of American's working overseas were developed largely from existing literature. The student conducting the dogmatism study made no conscious effort to relate his observations to the conceptual imagery we had been developing, even though he had been influenced by our work in selecting his thesis problem.

Second Stage: Elaboration

The message I got from this experience with these four graduate students was that they did not have an adequately formulated conception of the new way of thinking about the role of the practitioner. The conception must be further elaborated. Lazarsfeld calls this step "concept specification"--the development of aspects, components, dimensions. That stage was initiated during the work of a committee of the Department of Agricultural and Extension Education which I chaired, 1967-69. The committee was examining the possible need for a course of study for personnel concerned with programming in youth development.

During the work of that committee the five areas of competence began to evolve and take on initial definition.[14] Even though the areas of competence elaborated the initial imagery of being an astute student of the work environment, an imagery was also evolving of each area of competence (see Figure 1).

At that point I took leave of absence to accept a visiting professorship with University College, Dublin (Fall, 1969). In Ireland I was faced with creating a curriculum for a graduate program in Extension Education. The opportunity existed for approaching my task from whatever perspective I chose. I decided to attempt to organize a curriculum based on the five areas of competence. Over the next two years that orientation was pursued vigorously.

In the process, the notion began to emerge that the conception had potential to the student as a practitioner--to his view of what his role as a practitioner involved. He could think of his role from the perspective of the areas of competence. He could integrate these areas of competence by means of the initial imagery (becoming an increasingly astute student of his work environment). I will later refer to this as intellectual functioning.

As an exercise, students developed a paper in which they attempted to elaborate the areas of competence, based on their course of study. They were

also asked to relate the areas to their work experience. This was the experience through which they had opportunity to develop some facility with the conceptualizations. Equally important, the students were revealing inadequacies in the conceptualizations. Such inadequacies surfaced as they sought clarification or as they revealed their misunderstandings of the initial definitions of the ideas.

Third Stage: Refinement

Papers by graduate students in Ireland became the first specific efforts at refining the areas of competence. A more systematic effort was initiated in 1970/71. Three graduate students of that year undertook library studies by means of which each would further elaborate and define (refine) one of the areas of competence. The areas selected were: (1) coping with the work environment, (2) programming, and (3) functioning as a professional. These students went back to their jobs before completing their dissertations. To date the one on functioning as a professional[15] has been completed. The one on programming is nearing completion. The one dealing with coping with the work environment is still in process. Much remains yet to be done in the way of refining and further elaborating the areas of competence.

Fourth Stage: Testing

At the same time an effort was made to conduct some systematic testing of the conception. Carden made an initial attempt in 1969/70 with a critical incident study.[16] He classified critical incidents into one of the five areas of competence to which it appeared most obviously related. Reflecting on this effort revealed that if the conceptions were to be optimally useful to the practitioner he must view each incident from a perspective of each of the five areas of competence--not one. By viewing each incident (problem situation) from each of the five areas he would more likely be assured of having asked the

range of critical (telling) questions on which to base his judgment and select a strategy for coping with or responding to the problematic situation.

What Carden and I learned from his study lead to the approach followed with students in 1970-71. Five of the 1970-71 students who conducted critical incident studies undertook to test the conceptualization. McLoughlin's study[17] turned out to be the most comprehensive of the five. More details of what he did will be provided later in this paper.

Problems Encountered

During the process of conducting these studies it became evident that:

1. It may be unrealistic in a master's program to expect a student to conduct a critical incident study and undertake to test such a conceptualization.
2. Using the areas of competence as a basis for categorizing job related behaviors from critical incidents may be unrealistic--and perhaps inappropraite. The behaviors provide a way of describing what actually goes on on the job--the functions performed, the activities engaged in. The areas of competence provide a potential basis for bridging between the job and sources of knowledge.

I had expected it should be possible to start with behaviors found in critical incidents and inductively categorize them into areas at least comparable to what I was defining as areas of competence. Experience to date suggests that attempting to do so is not only difficult, it may be inappropriate. Areas of competence may be at least two levels of abstraction removed from job related behaviors.

Nevertheless, the students in Ireland who have worked most with the conceptualization are being influenced by it as they have examined and classified job related behaviors extracted from critical incidents.

The Conceptual Formulation

Perhaps I can illustrate the difficulties I have just been referring to in the following manner. In trying to conceive of curriculum we might consider the following question: What can a person learn that could help him become a practicing professional who is an increasingly astute student of his work environment? This professional must function in the real world. He performs in a job in which there are problems with which he must deal. He must bring something to bear on these problems (knowledge, insight, skill, attitudes, values) if he is to render a service. Perhaps this can be illustrated as one abutment to a bridge (Figure 2). The right abutment is represented as the job to be done by the practitioner-professional.

The left abutment is represented as the university and other institutions where knowledge is sought, sorted, conceptualized, stored, transmitted. It is assumed that such knowledge, if it can be made available, will be useful to the practitioner-professional.

The chasm between these two abutments is what must be bridged. That is no easy undertaking. The currents to be overcome are substantial. For one, the practitioner-professional is strongly oriented to thinking of his role in terms of "how-to-do." The existing descriptions of the job or role of the extension practitioner have been largely characterizations of the operational activities or functions carried out.

Currents which the chasm carries include: (1) the traditions of the profession; (2) existing conceptions about the job, training requirements and the like; (3) experiences at the job as well as those obtained in our formal and in-service professional development programs; (4) assumptions held about what the world is like in relation to the job, what the professional is expected to do in performing the job, what assistance professional development programs should provide, etc.

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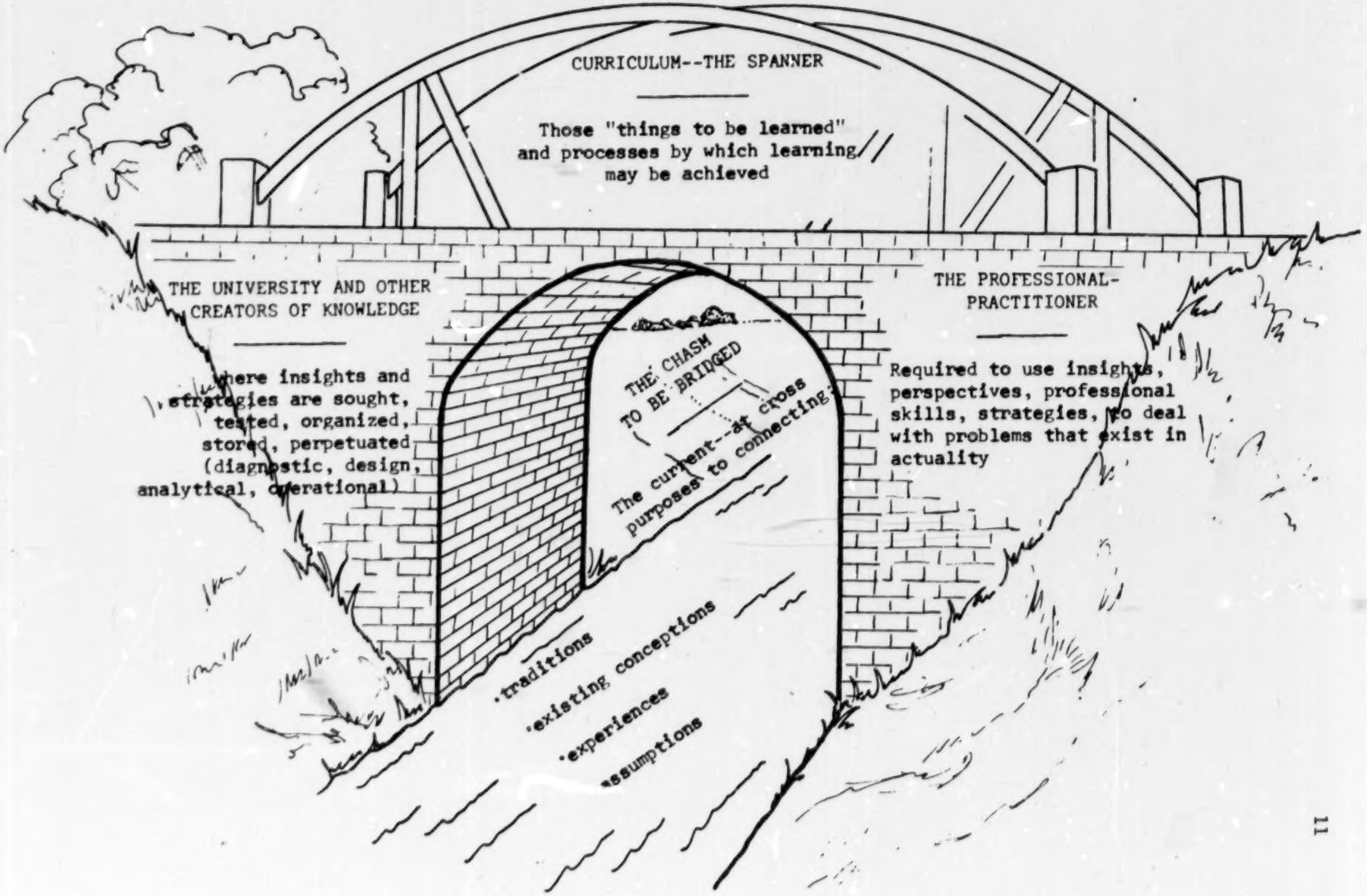
CURRICULUM--THE SPANNER
Those "things to be learned" and processes by which learning may be achieved
THE UNIVERSITY AND OTHER CREATORS OF KNOWLEDGE
Where insights and strategies are sought, tested, organized, stored, perpetuated (diagnostic, design, analytical, operational)
THE PROFESSIONAL-PRACTITIONER
Required to use insights, perspectives, professional skills, strategies, to deal with problems that exist in actuality
THE CHASM TO BE BRIDGED
The current--at cross purposes to connecting
·traditions
·existing conceptions
·experiences
·assumptions

Figure 2. Representation of basis for design of curriculum for the practitioner-professional.

The job of spanning the chasm is, first, one of design: How can a blueprint for a structure be developed that appears adequate to the situation. That blueprint for the spanner I'm calling the professional development curriculum. It includes not only the "things to be learned" but the processes by which the learning may be achieved.

Adult/extension education programs of study have relied heavily on such fields as sociology, educational and social psychology, cultural anthropology, political science. Students are programmed to take courses (subjects) in such areas of study. Typically they are taught by the sociologist as if they (adult/extension education students) were studying to become sociologists. The same thing happens in other areas. Only in the specifically labeled adult/extension education courses are students generally dealing with adult/extension education-type problems.

The chances are that, in the foreseeable future, most formal degree programs in adult/extension education will still have to rely on inputs from various disciplines and fields of study within the university. If so, can we conceive of the role of the adult educator so that our conceptualization will serve two purposes: (1) to help him focus on both ends of the bridge, integrating the two, and (2) to help him better utilize content from a range of areas of study?

Areas of Competence

The curriculum for the program in Ireland utilizes what I am calling areas of competence--areas that are tentatively judged to contribute to: (1) the extension practitioner becoming an increasingly astute student of his work environment; and (2) the integration of the behavioral and technological components of a course of study, therefore placing technology in a more adequate perspective.

The imagery of the conceptualization that has evolved is as follows: First, it must be emphasized that the adult/extension educator is a practicing professional. It is not adequate that he profess (as does the university professor) on certain subjects. What he knows must be used in assisting clientele to cope with real-to-life problems. Neither can the adult/extension worker be a technician: one who simply has answers and procedures to be followed.

Critical incident studies of the job of the extension educator, conducted both in the U.S. and in Ireland, confirm that the job is a complex one--that it really requires professional performance. There are both behavioral and technological components to the job. Evidence also confirms that, for at least those presently on the job, performance of the behavioral component is more likely to be characterized by them as critical to their success than the technological component.

Being a student means he never knows all he needs to know; that he is constantly grasping and groping for additional insights. Being astute means that he must become increasingly skilled at determining what he should give attention to as he attempts to learn from his work. To be a student of his work environment means that he makes his work situation an actual laboratory for learning.

That would mean that he could never be one who would rely on preconceived, prescriptive answers; that he must look upon each situation as new; that he must utilize his intellectual and other powers to sort out the significance of each problem situation as a fresh, new problem--one the likes of which he has not faced before. It does not mean that he would not look for things in common between problems. It means he would view the commonalities in perspective, judging their potential influences and impacts on each situation as it exists (to the best of his ability to determine).

For the present I am conceptualizing competencies required of the adult/extension educator-practitioner as falling into five areas. The areas are as follows:

1. Coping with the work environment (milieu).

   Not only must a practitioner-professional operate in an identifiable work environment, he must work and cope with that environment. My definition of the area is fairly broad. It includes political, social, cultural, economic, physical, and technological aspects (ways of thinking)--all the potentially useful systematic ways we have for thinking about what could surround the professional in his work. Note that the technological is included. This conceptualization can put the technological in perspective with other matters that must concern the practitioner.

2. Reckoning with human behavior.

   Most of what the adult/extension practitioner does is concerned with human beings. There are systematic ways of thinking about human growth, development and behavior. These ways of thinking can be acquired through study. They appear to have relevance to the adult/extension educator.

3. Conducting systematic inquiry.

   Much of what the practitioner-professional does needs to depend upon observations he makes, his own systematic organization and analysis of such observations, his judgments as to the impact of his analysis of these observations. We call the more formal means of carrying on systematic inquiry research. However, much of the observing the practitioner does and must continue doing is less formal. There are ways of thinking that can assist the practitioner in becoming more conscious of the need for and becoming more proficient in such inquiry.

4. Programming.

   Arranging for, conducting and assessing the consequences of intended/premeditated efforts to facilitate improvement (change) is usually

considered the core of the role of the professional educator. It is no less for the adult/extension educator. We have borrowed from education (curriculum development), adapted and created some of our own ideas in adult/extension education, to form this area of competence.

5. Functioning as a professional.

There are identifiable ways of thinking about the role of the practitioner; how he conceives of his role; how he relates his role to other roles in his employing organization and to other relevant people; how he organizes and manages available resources; what it means to be and function as a professional. These ways of thinking are available to be learned and to be integrated into the professional "equipment" of the adult/extension practitioner.

Three Dimensional Representation

This conception is represented diagramatically in Figure 3. First look at the top dimension of the diagram--what is expected of curriculum (the bridge). The bridge in Figure 2 should be transposed to this dimension of Figure 3. A number of critical incident studies have been conducted in recent years which contribute to a clearer definition of how the practitioner-professional functions operationally. The National Extension Curriculum Seminar[18] was a specific attempt to achieve a clearer perspective on what insights and strategies available from existing sources of knowledge might contribute to the competence of the practitioner. This seminar also was concerned with how these insights and strategies could be identified.

The content of the curriculum (the spanner) for this bridge would come from areas of study which might be incorporated into a professional development program. The areas of study form the side dimension for the diagram. Represented in Figure 3 are example areas of study--not a definitive list.

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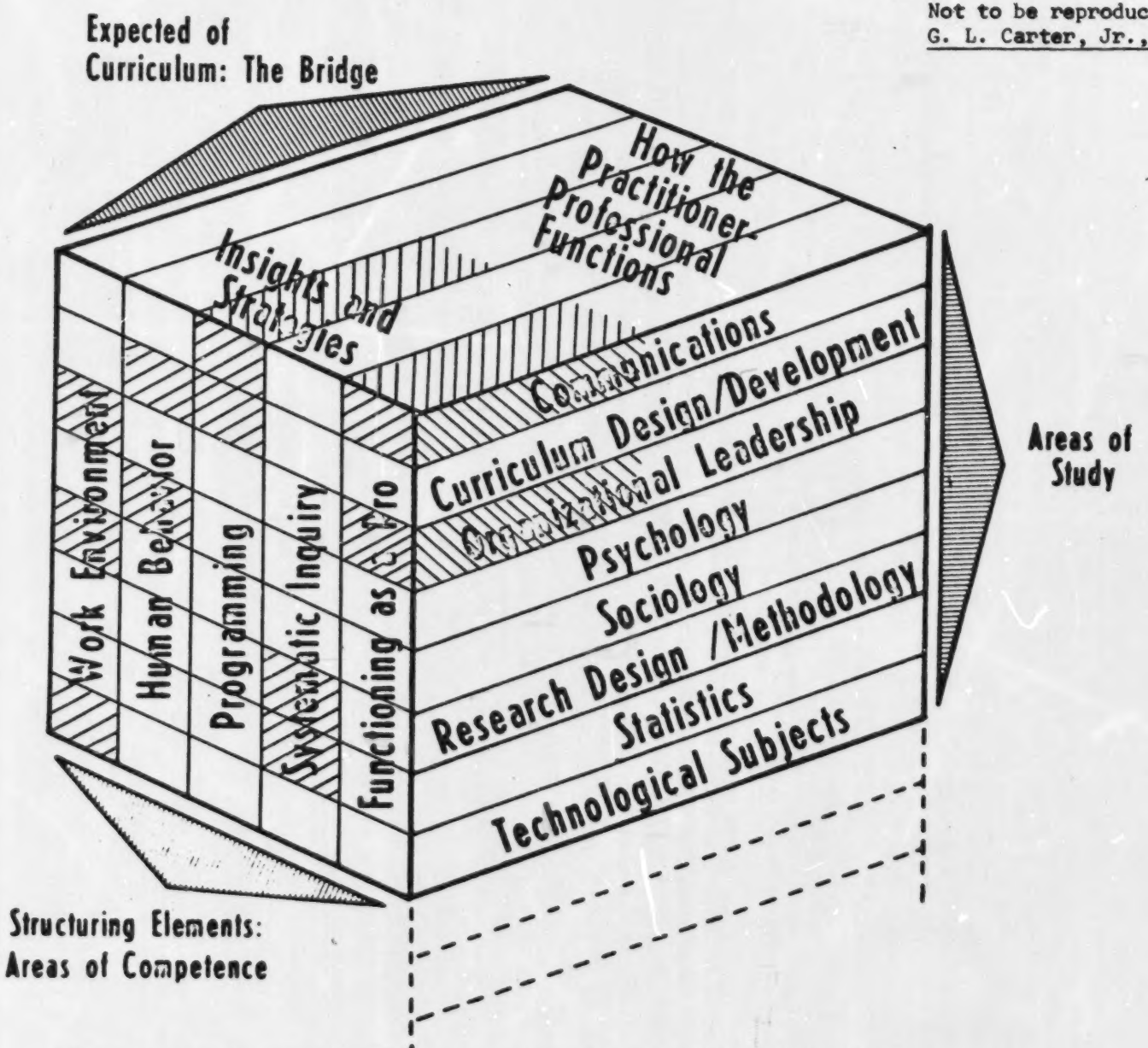

Figure 3. A visual conception of how areas of study in a professional development program can contribute to areas of competence appropriate to job requirements of the practitioner-professional.

These areas of study provide content from which "things to be learned" can be defined. The things to be learned provide clues as to processes (learning experiences) which may be provided to achieve desired learning.

The third dimension (the end) of the diagram provides the conceptual basis for linking the bridge and areas of study. These are referred to in the figure as structuring elements (areas of competence). If in fact these areas of competence do define the range of the combined intellectual and operational functions carried on by the practitioner, they should assist in: (1) selecting pertinent content from the areas of study (which can be translated into things to be learned); (2) in understanding how to connect knowledge (intellectual functions) to the job (operational functions).

Shading on the diagram illustrates: (1) that specific areas of study may contribute more to some areas of competence than others (for example, communications to functioning as a professional and programming; sociology to coping with the work environment); (2) how a balance may be achieved in a program of study to deal adequately with each area of competence. What may be potentially more useful than the notion of balance could be the utilization of the areas of competence as a framework for diagnosing individual professional development needs.[19] From such diagnoses, individualized programs could be more adequately developed.

Whether or not these five areas of competence adequately represent the range of a combination of intellectual and operational functions of the practitioner is still an open question. So is the question of whether competence in these areas would prepare a practitioner to become an increasingly astute student of his work environment. Assuming the latter to be the case, testing of the conceptual formulation that has been undertaken to date has been concerned with the areas of competence.

Illustration of Testing the Conceptual Formulation

As indicated earlier in this paper, the most systematic effort at testing the conceptualization was undertaken by McLoughlin.[20] For a master's dissertation he did a critical incident study to examine the job of the inspector in the Department of Agriculture in Ireland. An inspector would be the U. S. equivalent of a specialist and/or a supervisor. He used a sample of these critical incidents as a basis for testing the potential utility of the five areas of competence.

The critical incident was looked upon as a problematic situation. The practitioner-professional facing such a problematic situation (or attempting to analyze such a situation with which he had attempted to cope) could use the competency areas to help comprehend/understand the situation (intellectual functioning). An adequate comprehension or understanding of the situation would provide the basis for his formulating an adequate strategy for dealing with the problem in a professional manner (operational functioning).

Think, then, of the problematic situation as the object of examination. We'll put it under the microscope, so to speak.

Problem

Following is an actual example from McLoughlin's study:

The respondents' objectives were to make a certain area self-sufficient as regards produce and to have the produce marketed through a cooperative. He was aware that similar efforts in other areas had failed in the immediate past. After considering the problem for some time, he decided, with the assistance of local extension staff, to attempt to organize selected growers and potential growers in the area into a cooperative group. He succeeded in bringing them together in a discussion group, but things seemed to grind to a half then. They made no effort to do things

for themselves. He decided to get some of them to go ahead and procure certain facilities deemed by him as necessary for the project. This they readily agreed to do. Contributions were apparently readily made toward financing the project but the necessary products never materialized. The existing growers continued to market their products independently while the potential growers (selected) made no effort at all. Accordingly, all the respondents' efforts came to no avail.

We have a compound microscope with which to examine this problematic situation. It has five lenses. Each lense represents one of the five areas of competence. In testing the conceptual formulation McLoughlin used only one lense at a time. (It appears that in learning to use the microscope we would need to practice using only one lense at a time.) Remember that these lenses are intellectual lenses (ways of thinking). They are intended to assist in perceiving certain things about a phenomenon (in this case a problematic situation). Each lense is ground to help in perceiving certain things; each lense provides a certain orientation to a problem.

For purposes of illustrating the distinction between lenses, think of each as having a different tint. That tint enables us to see (perceive) certain things when we "look at" the problematic situation through that lense.

Coping with the Work Environment

For example, looking through the lense I have defined and labeled "coping with the work environment" we are enabled and prompted to ask ourselves certain kinds of questions. When McLoughlin looked through this lense at the foregoing problematic situation he asked himself (or suggested the reporter of this incident could have asked himself) such questions as the following:

1. Was the project acceptable to various organizations, interested groups, etc., in the area?

2. Was the project potentially viable; was there a supply of and demand for the product?
3. Was technical knowhow for instituting and servicing the cooperative available in the area?
4. Had those people concerned any cultural traits or characteristics which might influence their ability or willingness to cooperate?
5. Were larger or smaller growers involved; if so, were they likely to work together effectively in pursuit of the project's objectives?

These are fairly generalized questions. Even though they are prompted by a conception of the area of competence called "coping with the work environment," it may be possible to ask more refined questions--questions that might provide a better perspective and insight to one dimension of the situation.

For purposes of illustrating, consider that we have a collection of filters which are designed to further filter out and sharpen our focus on certain aspects of the phenomenon we are examining. These filters represent intellectual concepts (ways of thinking) which the practitioner can have in his professional bag of intellectual tools. They would be acquired from various areas of study which might have been included in his professional development program.

Again, for the purposes of learning to use our complex microscope and to test the conceptual formulation, let's attach one filter to the lense we call coping with the work environment. This filter comes from sociology. The sociologist calls it "social systems." The idea of social systems is related to and actually helps define the area of competence. It has to do with social structures in the environment.

Looking through the lense with the filter (social systems) attached, McLoughlin suggests that his respondent could have been prompted to ask such more refined, focused questions as the following:

1. Were growers selected from the same or different social systems?
2. Had growers previously cooperated in any way or did they express a desire to do so?
3. Was there a fair measure of agreement on objectives that should be pursued through cooperation?
4. Were persons of status or prestige involved? If so, might they have influenced or have been used to influence others?
5. What was the respondent's status with the growers?

We could use other filters. However, lets switch to another lense (area of competence). We want to continue looking at the same problematic situation but through a different tint. It is possible that the first lense would not have allowed us to see (perceive) everything that might be critical to perceive about the problem.

Reckoning with Human Behavior

The second lense (area of competence) we look through I have defined and called "reckoning with human behavior." When McLoughlin "looked through" this lense at the problematic situation he saw (perceived) it from a different perspective than when he was looking through the lense called coping with the work environment. That perspective prompted the following illustrative general questions:

1. Could behavior of people in previous efforts be related in any way to level of intellectual development (education, skills, etc.)?
2. Was there any detectable difference between growers in the way they behave--the way they reacted to suggested project?
3. If there were differences might differences be related to attitudes?

Again, the questions are general. A more sharply focused perspective is needed in order to perceive the problem adequately. Among the filters that

could be at the disposal of the practitioner (within his cognitive bag of tools) is one labeled "attitudes." Attaching that filter to the lense lead McLoughlin to suggest such questions as these:

1. Had potential members of the cooperative exhibited behavior indicating a positive or negative attitude toward the proposed project?
2. If unfavorable, was the attitude characteristic of those people and to what might it be attributed? Lack of information? Something else?
3. Was there indication that behavior of particular individuals influenced others?
4. How could those with positive attitudes be involved so as to influence others?

The filter we call attitudes would not be the only one that could be available to the practitioner and potentially useful in viewing this problematic situation. McLoughlin also used a filter called "needs." The following questions were suggested:

1. Was the proposed cooperative a felt or unfelt need?
2. If unfelt, could this explain lack of interest?
3. If felt, was it a priority?
4. Did individuals express the need for a cooperative for different reasons (economic, physical, social, integrative)?

Programming

A third lense (area of competence) I have defined and called programming. As defined, that lense helps the user "see" matters related to intentional, premeditated efforts to facilitate improvement (to facilitate learning). Such questions as the following were perceived through this tint by McLoughlin:

1. What learning by clientele would be necessary to effect or bring about economic (or other) change?

2. From what is known about behavior change, how might the reporter of this problematic situation have achieved desired behavior change most efficiently/effectively?
3. What learning by local extension staff, if any, would have been necessary to legitimize the proposed cooperative effort with the local staff?

As with the other lenses, filters could be attached to bring the situation into sharper focus. Examples of filters that would be potentially useful would be "participation or involvement" and "behavioral change."

Conducting Systematic Inquiry

Switching to the lense I have defined and called "conducting systematic inquiry" McLoughlin perceived the situation in a manner to ask questions like:

1. What factors contributed to failure of efforts in other areas where similar projects had been undertaken?
2. Did similar factors prevail which were likely to influence or effect outcome of these efforts?
3. How could the problem (needs) of area have been identified so as to enhance the likelihood that available resources would have been directed toward solution of significant and relevant needs of growers?
4. What data might have been collected (or existing data assembled) to provide basis for reaching defensible decisions (conclusions) in regard to needs of growers?

Again McLoughlin demonstrated the use of two filters in perceiving a more sharply focused vision of the problem.

Functioning as a Professional

Still deliberately looking through each lense of the microscope, one at a time, the practitioner would still have the one defined and called "functioning as a professional" to use. Due to this tint (the definition) of that area

of competence, the following questions are McLoughlin's examples of those that would be prompted:

1. What role should the practitioner perform in this situation?
2. How should the practitioner who was undertaking to promote this project have related to the local extension staff? To the growers?
3. What resources were available and how could these have been used to greatest advantage?

Filters were demonstrated which could bring the situation in relation to this area of competence into sharper focus.

Interpretation

Each area of competence (lense) was used by McLoughlin as illustrated here in order to test if each lense (area of competence) would allow him to perceive the problematic situation from a different perspective--to ask different questions. If the questions were not different, then the areas of competence were not prompting him to perceive the situation from a different perspective. If each was generating different questions, then it would be necessary to use all five in order to get a comprehensive perspective of the problem. The conclusion reached was that the questions were different.

Next the question arose: If questions generated by the five competency areas were different, were there critical aspects of the problem situation still potentially unperceived? McLoughlin concluded that there were none. However, it might be noted that McLoughlin could have blind spots in his perceptual field--spots which were not perceivable to him simply because he had no adequate way of thinking that would reveal such spots. He was able to see only by means of the intellectual lenses with which he had acquired some facility. This becomes one of the limitations of this means of testing such

a conceptual formulation. As illustrated here in the case of McLoughlin, rigor with which he was able to carry on such a test was limited by his understanding of the various conceptual ideas he used.

It should further be noted that taking one lense at a time was for the purpose of testing. It would also probably be necessary to take one lense at a time in learning to use the conceptual formulations. However, once the practitioner-professional had acquired facility with all the lenses and a reasonable number of more refined concepts (filters), he would likely look through all five of the lenses at once.

The number of areas of competence (lenses) is intentionally kept to no more than five to make that possible. Most of us are able to mentally manipulate four or five things at once. When the number gets larger we are forced to take them one at a time or in subgroups.

Summary

Over the past ten years an effort has been directed toward developing a new conceptual formulation related to the professional development of and functions performed by the adult/extension educator-practitioner. The purpose for such a new formulation is one of providing a more adequate conceptual basis for: (1) designing professional development programs, and (2) viewing the role of the practitioner.

It has been suggested that a more adequate role for the practitioner might be thought of in two dimensions: (1) intellectual functioning, and (2) operational functioning. These two ideas have not been explicitly developed in this paper. The notions of a behavioral and technological component on the job of the extension worker has also been introduced without being developed. The expression "things to be learned" has been used frequently, but without elaboration.

The inquiry which this paper reflects has been characterized as fluid (long-range) in accordance with a stable-fluid classification suggested by Schwab. The structure that has been imposed on the preceding ten years of effort has been largely in retrospect. Lazarsfeld's idea of a four-step process in social inquiry has been used in imposing that structure. The idea that has been pursued and the purpose for which it has been undertaken has remained constant. The vision of scope for the idea has expanded over time, however.

The paper has been developed as a way of saying/demonstrating that:

1. A greater proportion of scholarly resources in our field should be deliberately directed toward further development and refinement of existing conceptualizations and the creation and testing of new ones.
2. Such scholarly efforts must be viewed as developmental, employing a different orientation to inquiry than much of what is typically undertaken.
3. There are inherent difficulties in testing new conceptual formulations.
4. The conceptual formulation explored in this paper to illustrate the above points has been demonstrated in practice to have potential utility to the profession--both as a basis for designing curricula and in conceiving of the functioning of the practitioner-professional more adequately. However, it has not been possible to rigorously test this conceptual formulation against other possibilities.

Footnotes

1. Cyril O. Houle, The Inquiring Mind (Madison, University of Wisconsin Press, 1961).

2. S. B. Sheffield, "The Orientation of Adult Continuing Learners," in Daniel Soloman (ed.), The Continuing Learner (Chicago: Center for the Study of Liberal Education for Adults, 1964), pp. 1-22.

3. Paul Burgess, "Reasons for Adult Participation in Group Educational Activities," Adult Education, XXII (Fall, 1971), pp. 3-29.

4. Edward de Bono, New Think: The Use of Lateral Thinking in the Generation of New Ideas (New York: Basic Books, Inc., 1968).

5. George Hyatt, Jr., "Staff Competence," Journal of Cooperative Extension, IV (Fall, 1966), PP. 135-42.

6. Joseph J. Schwab, "Structure of Disciplines: Meanings and Significances," and "The Structure of the Natural Sciences," in G. W. Ford and Lawrence Pugno (eds.), The Structure of Knowledge and the Curriculum (Chicago: Rand McNally & Co., 1964), pp. 1-49.

7. Ibid., p. 39.

8. Ibid., p. 41.

9. Paul F. Lazarsfeld, "Evidence and Inference in Social Research," Daedalus, LXXXVII (No. 4, 1958).

10. The idea was first developed in G. L. Carter, Jr., "Some Thoughts on Human Resource Development," a paper presented to the Canadian Agricultural Extension Council, May 6-7, 1966.

11. Fred E. Kohl, "A Critical Incident Study of Idaho Extension Agricultural Agents," unpublished Ph.D. dissertation, University of Wisconsin, 1968; and Loren F. Goyen, "Critical Components of the Work Environment of County Extension Youth Agents," unpublished Ph.D. dissertation, University of Wisconsin, 1968.

12. Mary Boppell Johnston, "Training Needs of Americans Who Have Worked in Asia," unpublished Ph.D. dissertation, University of Wisconsin, 1970.

13. C. Dennis Funk, "The Relationship Between Dogmatism in County Extension Agents and the Three Selected Variables of Job Performance, Job Satisfaction and Job Aspirations," unpublished Ph.D. dissertation, University of Wisconsin, 1968.

14. G. L. Carter, Jr., "Creating a Curriculum in Youth Development: A Proposal to the Department of Agricultural and Extension Education," a working paper, September 5, 1969.

15. W. P. Kehoe, unpublished master's dissertation, University College, Dublin, 1973.

16. Eoin T. Carden, "The Critical Job Requirements for Instructors in Horticulture and Beekeeping in Ireland Based on an Analysis of Critical Incidents," unpublished master's dissertation, University College, Dublin, 1970.

17. Michael McLoughlin, "A Critical Incident Study of Agricultural Inspectors in the Department of Agriculture and Fisheries," unpublished master's diss dissertation, University College, Dublin, 1972.

18. This was a workshop involving representatives of sixteen Land-Grant Universities with graduate programs in extension education. The group met twice per year with Ralph W. Tyler as Chief Consultant and Adviser.

19. The Minnesota Metropolitan State College uses somewhat comparable areas of competence for diagnosing entrance qualifications and in designing individualized programs of study. See Science Education News, April 1972, pp. 6-7.

20. McLoughlin, op. cit.